

AMENDMENTS TO THE CLAIMS

1. (currently amended) A ~~telecommunications/computer~~ system having comprising a plurality of ~~regularly connected~~ computing nodes interconnected to form a plurality of node clusters, wherein, ~~such that the plurality of nodes are clustered in a plurality of interconnected neighborhoods, the system characterised in that a relatively small number of cross-links are provided between nodes of different neighborhoods~~ said clusters, the cross-links being selected such that the system has a high degree of clustering of nodes in combination with a low average path length between nodes.

2. (currently amended) The system of claim 1 wherein the ~~relatively small number of connections are random links~~ cross-links between the node clusters are selected at random.

3. (currently amended) The system of claim 1 ~~or 2~~ wherein the ~~neighborhoods~~ the node clusters are fully interconnected.

4. (currently amended) The system of claim 1 wherein the ~~mean connectivity between nodes of different neighborhoods is in the range of about~~ average path length between the nodes is less than 1.5 to 2.0.

5. (currently amended) The system of claim ~~1~~ 4 wherein the ~~mean connectivity between nodes of different neighborhoods is about 1.6~~ average path length between the nodes is between 1.5 and 1.7.

6. (currently amended) A large scale computer system including a multiplicity of nodes, each node having a plurality of interconnected processors, said nodes being arranged in a network with neighboring sets of nodes of the network forming ~~neighborhoods~~ clusters of fully interconnected nodes, wherein ~~random~~ cross-links are provided between nodes of different ~~neighborhoods~~ clusters in the network, the cross-links being selected at random to provide a high degree of clustering of nodes in combination with a low average path length between nodes, whereby each processor of the system can communicate effectively with other processors regardless of their location in the network and without full connectivity in the network.

7. (currently amended) A scalable computer system comprising a plurality of computing nodes interconnected according to ~~formed using a~~ the small world principle, whereby the system is characterized by a high degree of clustering of nodes in combination with a low average path length between nodes.